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CAST IRON

Understanding graphite expansion during the eutectic solidification of cast iron through combined linear displacement and thermal analyses
G. Alonso, IK4-Azterlan, Spain

Spheroidization of cast iron using tundish cover method and cored wire method
M. Altuna, Grupo Wec, Spain

Threading on high strength iron casting: a key operation on final production stages
I. Elosegui, Basque Country University, Spain

A study on prediction of microstructure and mechanical properties for a constructive equipment part using ductile
S.M. Lee, Hunday, Japan

The effect of C, Si, Mn, P and S additions on the chilling tendency of cast iron
H. F. López, University of Wisconsin-Milwaukee, USA

Solidification of ductile iron within the mold cavity: some ideas to improve its yield
N.T. Rizzo, Independent consultant, Argentina-Venezuela

Large sized casting constructions of thermal-fatigue resistant cast iron elaborated in integrated system of numerical calculations.
A. Pytel, Foundry Research Institute, Poland

As-Cast variations in mechanical testing of cast iron and its use to design tests for parameter studies
J. Åberg, Elkem Foundry Technology, Norway

Effect of surface roughness on eddy current signal of ductile cast iron with different matrix
N. Horikawa, Asahikawa National College of Technology, Japan

Effect of Mn and S on the mechanical properties of cast iron
I. Kang, Kimura Chuzosho Co, Japan

Optimizing of alloying elements and heat treatment cycle on production of ductile iron casting with subzero impact energy absorption
F. Sahihi, Oil Turbo Compressor Engineering Company, Iran

Effect of microstructure on the mechanical and performance properties of high-vanadium cast iron
M. Kawalec, AGH University of Science and Technology, Poland
ADI - The new dream material for gear designers
A. Nofal, Central Metallurgical R&D Institute (CMRDI), Egypt

Influence of Manganese and Nitrogen on the microstructure and mechanical properties of flake graphite cast iron
S. Hiratsuka, Iwate University, Japan

Effect of carbon, silicon, nickel and other alloying elements on the mechanical properties of as cast ferritic ductile irons
J. Sertucha, IK4-Azterlan, Spain

Grey cast iron for the automotive industry
O. Knustad, Elkem Foundry Technology Products R&D, Norway

The ductile iron treatment process development revisited
G. Maltsev Hansen, Elkem Foundry Technology, Norway

No-bake mould iron casting skin management – effect of Magnesium residual and mould coating
I. Riposan, Politehnica University of Bucharest, Romania

Austenite stability of austempered ductile iron (ADI) in sub-zero conditions
L. Alava, IK4-Azterlan, Spain

The use of thermal analysis to compare solidification pattern, and evaluate performance, of several inoculants, in ductile iron
C. Silva Ribeiro, Universidade Do Porto - Faculdade De Engenharia, Portugal

The science of intercritically Austempered Ductile Iron (IADI)
A. Druschitz, Virginia Tech, USA

Control of ductile iron austempering process by advanced data-driven modeling
M. Perzik, Warsaw University of Technology, Poland

Development of a totally new inoculant for ductile iron castings
K. Soulas, Ferropem SAS, France

An investigation of machining properties of Compact Graphite Iron (CGI)
R. Akyuz, Demysap Döküm Emaye Mamulleri Sanayi A.P.), Turkey

Impact characteristics and mechanical properties of copper alloyed spheroidal graphite cast irons
T. Nobuki, Kinki University, Japan

Controlling in-situ microstructure of S.G iron castings
S. Sharma, B. Tech, India
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Micro-refinement of AL-SI alloys melt in the sand casting process using barium and grain refiner additions
D. Benny Karunakar, Indian Institute of Technology Roorkee, India

Analysis of the behaviour of steel components in contact with AZ91D and AM60 Magnesium alloys in HPDC
P. Eguizabal, Tecnalia, Spain

The effect of cast shape and density differences between metal-matrix and solid particles on the distribution of the reinforcing phase in composites
M. Szucki, AGH University of Science and Technology, Poland

Effect of alloying elements on sulfide morphology of lead free bronze castings with dispersed sulfides particles
T. Maruyawa, Kansai University, Japan

Aluminium bimetal structure production by lost foam casting with liquid-liquid process
A. Kisasoz, Yildiz Technical University, Turkey

Separation of primary phases during solidification from Aluminum alloy melts by a centrifugal separation
K. Ki-Young, Korea University of Technology and Education, S. Korea

Development of a new methodology to use recycled secondary Aluminum substituting primary recycled A356 Aluminum alloy in safety components in low pressure technology
E. Ochoa de Zabalegui, Edertek S.Coop / Mapsa, Spain

Research on the interfacial reaction of Zirconium alloy with molding materials and its casting technique
L. Hongyu, Shenyang Research Institute of Foundry, China

Research and development of technology for large – thin wall – high quality Aluminium castings for aircraft industry
M. Horacek, Brno University, Czech Republic

Effect of the cooling rate on distribution of transition elements in the intermetallic AL-MN-FE-SI phase in ALSI9MGMN alloy
Z. Zovko Brodarac, University of Zagreb Faculty of Metallurgy, Croatia

Development of new AL-SI9CU3 alloys for HPDC components with tailored properties
I. Vicario, Tecnalia, Spain
On the effect of strontium additions over macro-shrinkage porosity defects in hypo-eutectic Aluminium alloys
R. Cuesta, CIDAUT, Spain

Improved grain size prediction in Aluminium-Silicon alloys by thermal analysis
J. Lacaze, CIRIMAT / IK4-Azterlan, France

Intelligent degassing - studies on controlling the process of hydrogen removal from Aluminium
R. Simon, Foseco Europe, Germany

Analysis of the effects of the modifier elements (SR, SB) in AL-SI foundry alloy
J. Dul, University of Miskolc, Hungary

How to solve Air & Gas blow holes in the Aluminum gravity Die Castings
M. Thirugnanam, Aluminum Foundry Consultant, India

Study of the influence of alloying elements on the high temperature properties of wrought Aluminium alloys
M. Merchán, Tecnalia, Spain

Effect of NB addition on yong’s modulus and linear expansion coefficient of cast pure Titanium
L. Shibing, Shenyang Research Institute of Foundry, China

Semi-solid slurry generation and casting by the new Ultra-SSM technology based on ultrasounds
M. Da Silva, ASCAMM Centro Tecnológico, Spain

Improved precision in grain size prediction by thermal analysis and statistical analysis in Aluminium castings
A. Fernández, IK4-Azterlan, Spain

Surface chemical inhomogeneity of high-pressure die cast AL-SI alloys and its effects on corrosion behaviors and adhesive bonding capabilities
J. Shi, Institute of Joining and Welding, Technische Universität Braunschweig, Germany

The influence of CR content on the FE-Rich phase formation and impact toughness of a Die-Cast ALSI9CU3(FE) alloy
G. Timelli, University of Padova, Italy

Machinability of short alumina fiber reinforced Aluminum alloy composite
K. Asano, Kinki University, Japan

Grain-Refinement of ZINC-ALUMINIUM based foundry alloys
W. Krajewski, AGH University of Science and Technology, Poland
Fabrication of AL/STEEL composites by vacuum assisted block mould investment casting technique  
K.A.Guler, Yildiz Technical University, Department of Metallurgy and Materials Engineering, Turkey

Microstructure evolution and mechanical properties of Sonoprocessed- Thixocast ACA4 billets  
S.Elhadad, Central Metallurgical Research & Development Institute (CMRDI), Egypt

Effect of ultrasonic vibration on microstructure of MG-RE-ZN-Y cast alloys  
S. Wu, State Key Lab of Materials Processing and Die & Mould Technology, China
FOUNDROY TECHNOLOGIES, EQUIPMENT, MANUFACTURING, TOOLS, ROBOTICS AND AUTOMATION

Model predictive control for pressurized molten metal with liquid temperature drop in press casting process
R. Tasaky, Toyohashi University of Technology, Japan

A rational for determining the benefit of aeration green sands filling
S. N. Ramrattan, Western Michigan University, USA

New concept thermal sand regeneration system
P. Bocca, Fata Aluminum, Italy

Casting press tools for manufacturing glass components
P.K Sandel, Sandell Associates, India

Carbon in cast-iron, new method for optical emission spectroscopy
K. Todter, Spectro Analytical Instruments Gmbh, Germany

Advancements in cold box gassing processes
J. Kroker, ASK Chemicals LP, USA

The melting, holding and pouring process - energy and process related aspects
W. Schmitz, Otto Junker GmbH, Germany

Application of sand mold creation by 3D printer with artificial sand
Y. Tomita, Kimura Chuzousho Co., Ltd, Japan

Refractory innovations permitting time, energy & cost savings in foundry meltshop applications. Advantages with Quick Dry – (QD) refractory.
K. Stinzing, Calderys, Germany

Review of parameters influencing the low temperature impact resistance, and other mechanical properties, of heavy section DI castings
P.M Cabanne, Rio Tinto Iron & Titanium, France

Increasing productive efficiency of casting of ferrous and non-ferrous alloys
M.A. Sadokha Belniilit, Jsc, Rep. Belarus

Sheet metal mould casting – a novel alternative to production of sand castings
P.C. Maity, CT Institute of Engineering, Management and Technology, India

Modeling and analysis on stream-tube of pouring flow with a pair of multi-pendulum in self-transfer-type automatic pouring robot
S. Ryota, Toyohashi University of Technology, Japan

Technological innovation as a tool for industrial growth
S. Bacco, Centro de idiomas y computación, Argentina
In-house-recycling of fine sized scrap and production residues employing state-of-the-art coreless induction furnaces - latest developments
W. Schmitz, Otto Junker Gmbh, Germany

Udicell™ – tubular foam ceramic filters for the foundry industry
U. Voigt, ASK Chemicals Metallurgy Gmbh, Germany

Innovation and practice on measuring thermophysical property of the melt
L. Dayong, Harbin University of Science and Technology, China

Syncarb z2 crucible
D. Heumannskaemper, Morgan Advanced Materials, Molten Metal Systems, Germany

Development and extending of sodium silicate used sand reclamation technology and equipment
W.D. Anjie, Wuxi Xi – Nan Fundry Machinery Co., Ltd, China

Optimum trajectory generation for lower position pouring and outflow liquid falling position control
I. Atsushi, Toyohashi University of Technology, Japan

Development of high pressure die casting dies with internal refrigeration and sensors with reinforced cast steel
I. Vicario, Tecnalia, Spain

Increasing the weldability of die cast parts by minimal die lubrication
Ch. Garthoff, Technische Universität Braunschweig, Braunschweig, Germany

Extract from the lecture of maschinenfabrik Gustav Eirich
G. Feuerstein, Gustav Eirich, Germany

The influence of process parameters to composite interface organization and performance of the liquid/solid bimetal
S. Rong, Jiamusi University, China

Continuously-iterative casting by freezing-up of tube billets
V.F. Bevza, Institute of Metal Technology Nan Rb, Slovenia

Opportunities to optimize internal cooling systems used for the Aluminum Die-Casting process
S. Müller, Technische Universität Braunschweig, Braunschweig, Germany

Grain-Refinement of ZINC-ALUMINIUM based foundry alloys
W. Krajewski, AGH University of Science and Technology, Poland

New developments in hybrid use of induction and plasma heating technologies for melting and holding ferrous and non-ferrous alloys
D. Eguizabal, Tecnalia R&I, Spain
The principle and application of the new method for fast and dynamically measure hydrogen partial pressure in melt
L. Danyong, Harbin University of Science and Technology, China

Semi-solid processing of metals and alloys by electric current treatment during sand casting
A. Prodhan, MEF Division, CSIR - National Metallurgical Laboratory, India
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Cleantech: a new organic binder for Aluminium and Iron casting
M. Vargas, Hütt enes-Albertus, France

Core binder impact on recycling core sand: TG-GC-MS analysis of core binders and understanding the hydrophobic nature of core binder evolved gases and core binder residues
J. T Fox, Lehigh University, USA

Experience with design of inorganic core binder in relation to metal and foundry conditions
P. Oberschelp, S&B Industrial Minerals Gmbh, Germany

“No” is not an option – new developments in the field of inorganic binder systems
Mr. Deters, ASK Chemicals, Germany

New core binder system for Aluminum casting based on Polysaccharide
T. Aoki, Sintokogio, Ltd, Japan

The high temperature deformation behaviour of bentonite bonded sands and possibilities for their influence
H. Polzin, TU Bergakademie Freiberg, Germany

Bentonite modification to meet today’s greensand mold requirements
C. Grefhorst, S&B Industrial Minerals Gmbh, Germany

Creation of castings/mold interface characterized by heat insulation and good heat transfer in aluminum die-casting by heat insulation and good heat transfer in aluminum die-casting
F. Kurukawa, Toyota Motor Corporation, Japan

The use of specialty sand blends to improve casting quality and reduce costs
S. Ravi, University of Northern Iowa, USA

Thermo-physical properties vs. Temperature of selected foundry sands
W. Krajewski, AGH University of Science and Technology, Poland

Influence of the furan moulding sand on the nodular Iron casting surface quality
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The use of nanomaterials for the synthesis of high-temperature phase in refractory coatings
Y. Nikolaichick, Belarusian National Technical University, Rep. of Belarus

New casting strategy for eliminating both indigenous and exogenous gas porosity and other casting defects
P. Habibullah, Interdisciplinary Res. In Met. & Mat. For Adv. Appl., Pakistan
Research on digital prototyping process of desulfurization gypsum mould
Z. Wang, China Academy Of Machinery Science & Technology, China

Semi-permanent release agent for cold box core production
S. Clifford, ASK Chemicals LP, USA

Active cooling of resin bonded moulds to reduce the cooling time of heavy section castings without loss of casting quality
U. Petzschmann, IFG-Institut Für Gießereitechnik Gmbh, Germany

Modern coatings for the manufacture of core packages: preparation and application
K. Seeger, Hüttenes-Albertus Chemische Werke Gmbh, Germany

A new method for the measurement of flowability of green moulding sand
J. Bast, Technical University Bergakademie Freiberg, Germany
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Analysis of casting defects in steel foundry by computerized simulations (CAE) - a new approach along with some industrial case studies
R. Tapam, Texmaco Rail & Engineering Limited, India

Casting of titanium alloys in centrifugal vacuum furnaces
A. Karwiński, Foundry Research Institute, Poland

Analysis and prediction of casting defects using casting simulation
G. Thiel, University of Northern Iowa, USA

Microstructure evolution and mechanical properties of Sonoprocessed- Thixocast ACA4 billets
S. Elhadad, Central Metallurgical Research & Development Institute (CMRDI), Egypt

Effect of ultrasonic vibration on microstructure of MG-RE-ZN-Y cast alloys
S. Wu, State Key Lab of Materials Processing and Die & Mould Technology, China

Software for the optimization of raw materials in casting: a key to quality and competitiveness
A. Montenegro, AMV Soluciones, Spain,

Calculation of thermophysical properties of casting alloys and its application to casting simulation
In-S. Cho, Korea Institute of Industrial Technology, S. Korea

New trends in simulation process and data management in foundry industry
P. Malinowski, AGH University of Science and Technology, Poland

Mold filling simulation using porous-media grids and gas-liquid flow analysis mars method
Y. Maeda, Japan Coast Guard Academy, Japan

Light weight in iron, new design, process and material strategies developments of nodular graphite iron in suspension components for the automotive industry
P. Rodríguez, Fagor Ederlan / Edertek S.Coop, Spain

Experimental verification of progressive method for porosity prediction
M. Bruna, University of Žilina, Slovakia

Modelling of nucleation substrates size distribution in Aluminium-Zinc alloy
B. Gracz, AGH University of Science and Technology, Faculty of Foundry Engineering, Poland

Nonparametric optimum design method for die casting using computational fluid dynamics simulations
K. Kanazawa, MIE University, Japan
Centrifugal casting of large TI-6AL-4V structural components supported by process modelling
O. Koeser, ESI Group, Germany

Accuracy analysis of rank controlled differential quadrature metod against exact solution of al ZN alloy cooling model
P.Zak, AGH University of Science and Technology, Poland

Advanced quality control in foundry manufacturing process
M. Saleem, University of Duisburg-Essen, Germany
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Low Emission Foundry
M. Favini, IMF Group, Italy

Influence of regenerate addition to the moulding sand with furan resin on the emission of toxic gases at high temperature
M. Holtzer, AGH University of Science And Technology, Faculty of Foundry Engineering, Poland

Recovery of bentonite and other materials from foundry waste streams
V. Lafay. S&B Industrial Minerals N.A, Inc, USA

Utilisation of the latest binder and sand conditioning technology to reduce costs and improve the foundry environment
C. Wilding, Omega Foundry Machinery Ltd, UK

Environmentally friendly and highly efficient binder systems for self-curing experience from the field
A. Gieniec, ASK Chemicals Metallurgy GmbH, Germany

Understanding emission characteristics of a foundry sand binder
S. Giese, University of Northern Iowa, USA

Environmental-friendly sand casting technique using frozen mold
S. Tada, National Institute of Advanced Industrial Science and Technology, Japan

Possibility of utilization of dust generated during mechanical reclamation of used sands moulds as a source of energy
M. Holtzer, AGH University of Science and Technology, Faculty of Foundry Engineering, Poland

Greensand "less is best" a more sustainable philosophy for change
J. Howden, AMCOL, Australia

The establishment of sustainable development capacity of the foundry industry index evaluation system
A. Guangkuo, Shenyang Research Institute of Foundry, China

Optimum design of process variables of centrifugal casting for large Aluminum motor rotor
K. Deok Su, Hyundai Heavy Industries, Japan

Engineering and organizational work, planning and control method to obtain solutions for waste foundry sands in Brazil. Case ADF / UFS
Brasil case in Brasil, and presentation of the model for deploying international committee to discuss solutions for ADF / UFS
F. Garcia Filho, ABIFA - Brazilian Foundry Association, Brazil
CAST STEEL

The study of cavitation erosion behaviour of alloy steels used in the casting of the hydraulic turbines parts
L. Cinca-Ionel, Eftimie Murgu University, Romania

Yttrium addition effect on mechanical properties at high temperature in Ni base superalloy
W. Kee-Do, Chonbuk National University, S. Korea

An overview on high manganese steel casting
C. Mahlami, University of Johannesburg, Department of Metallurgy, S. Africa

Net/Gross yield optimization on high value added steel casting
J. Prat, ASK Chemicals Metallurgy Gmbh, Spain

Effects of alloying elements on heat shock resistance of low carbon cast steel
N. Harada, Kurimoto Ltd, Japan

On the nature of high pressure die casting die failures
A. Igartua, IK4Tekniker, Spain

A duplex stainless steel casting with 1 WT.% Gadolinium for a neutron absorbing material with high strength and excellent corrosion resistance
B. Moon, Korea Institute of Industrial Technology, S. Korea

Recent progress in application of casting AOD technology — AOD+AOT
H. Yong Liang, Shenyang Research Institute of Foundry, China

Application study of rapid manufacturing for engine parts
S. Zhongde, Advanced Manufacturing Technology Center, China

The development of new essay techniques to investigate the behavior of austenitic steels with nanoalloys.
P. Caballero, Tecnalia R&D, Spain
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Developing the future workforce – The UK perspective
P.A. Murrel, Institute Of Cast Metals Engineers, UK

E-foundry: free online learning resources in casting design and simulation
B.Ravi, Indian Institute of Technology Bombay, India

An update on AMCOL’S elearning training modules for green sand practice and control
P. Verdot, AMCOL International, France

Applying the principal of the 7-i’s to improve technology transfer
T. Prucha, American Foundry Society, USA

Sustainability is the key driver of innovation
D. Cooper, Fairmount Minerals, USA

Global metalcasting: assessing our strengths and weaknesses & developing inputs for a sustainable industry
A. Spada, American Foundry Society, USA

Stacast project: from a survey of European Aluminum alloys foundries to new standards on defect classification and on mechanical properties of casting alloys
F. Bonello, University of Padova, Italy

Quality and supplier strategy of automotive industry
M. Ata, Continental, Germany

High quality foundries are closing all over the world- want to know why
M. Mehling, Take Control Marketing, USA

A project of ladle management of mini blast furnace hot metal transfer & reduction ladle skull formation THRU DMAIC tools
A. Sengupta, Tata Metaliks Kubota Pipes Ltd, India
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The effect of GHG emission on climate change due to inefficient usage of energy in South African steel foundries
Z. Rasmeni, University of Johannesburg, Department of Metallurgy, S. Africa

Importance and effect of foaming slag on energy efficiency
T.K. Mwata, University of Johannesburg, Faculty of Engineering and the Built Environment, S. Africa

Review of energy efficiency and consumption in South African steel foundries
Z. Rasmeni, University of Johannesburg, Department of Metallurgy, S. Africa

Advanced sustainable foundry – carbon balance and carbon footprint in foundry processes and foundry product cycles
J. Helber, B-B-H Beratungsbüro, Germany

Possibility check-up of shredded scraps usage in foundry
L. Sang-Hwan, Korea Institute of Industrial Technology, S. Korea
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Sand additives to reduce veining and avoid refractory coatings
R. Stötzel, ASK Chemicals Gmbh, Germany

Development of heat treatments for automotive components diecast with secondary aluminium alloy at semi-solid state
G. Timelli, University of Padova, Italy

Consistent coating application properties through automated preparation and continuous density control
G. Genzler, Foseco Europe, Germany

Microstructure modification of Al-4.5% mg alloy using ultrasonic treatment
W. Khalifa, Cairo University, Egypt
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A. Meléndez, Tecnalia, Spain
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N. Changjiang, School of Materials Science and Engineering, Tsinghua University, China

Three-dimensional numerical analysis of the harmfulness of defects in oil pipes
M. Bachir, University, Argelia

Research and development of innovative 2D casting process of cad systems based on neutral format file and non-parametric drawing
T. Hongtao, State Key Laboratory of Materials Processing, China

Research on the optimal solution for casting process design based on casting simulation software
S. Xu, State Key Laboratory of Materials Processing, China

Towards an effective dimensional verification of eolic casting
U. Multiba, IK4 Tekniker, Spain

Research on the collaborative production quality chain (CPQC) model in foundry enterprises
J. Xiaoyuan, State Key Laboratory of Materials Processing, China

Characteristics of erosive wear with FE-V-CR-C cast irons
K. Kusumoto, Muroran Institute of Technology, Japan

Fracture characterization of new generation ferritic spheroidal cast irons
G. Artola, IK4-Azterlan, Spain

Process modeling and microstructure prediction validation of sand ductile iron castings
E. Salsi, Università di Bologna (CIRI-MAM), Italy

Machining with ceramic inserts of ADI parts for achieving tight tolerances
A. Fernández, Dpto. de Ingeniería Mecánica (UPV/EHU), ETSI. Spain

Fatigue characteristic of spheroidal graphite cast iron with alternate material of rare earth
T. Funabiki, Muroran Institute of Technology, Japan

Sensor for the detection of sand-filling-process in aeration molding machines
M. Strehle, TU Bergakademie Freiberg, Germany

Critical control variables for the coating process of furan bonded sand with water based foundry coatings
G. Di Muoio, Global Castings, Denmark

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A. Rodríguez, University of the Basque Country (UPV/EHU), Spain
Microstructural features of primary and secondary ductile high pressure die casting alloys for the automotive industry

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Evaluation of fluidity of semi-solid Aluminum alloy slurry prepared by mechanical vibration
Y. Murakami, National Institute of Advanced Industrial Science and Technology, Japan

Ti-6al-4v turbine blade investment casting melted in cold crucible induction melting
X. Chamorro, Mondragon Unibertsitatea, Spain
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Improvement of nitriding characteristics of ductile cast iron by an addition of alloying elements
M. Hatate, Kinki University, Japan

CADI – Carbidic Austempered Ductile Iron. Control structure in order to improve the tribological properties
M. Kranc, Department of Ferrous Alloys, Foundry Research Institute, Cracow, Poland

The effect of alloying elements on the elevated-temperature properties of high Si-Mo cast iron
K. H. Choe, Korea Institute of Industrial Technology, Incheon, S. Korea

Application of wireless Induction Power Transfer (IPT) systems and new energy efficiency solutions to decrease the embodied energy of the foundry products in iron, steel and Aluminum sectors (NIWE project)
J.L. Vadillo, CIRCE, Spain

Metal wastes recycling by means of rotary furnaces

The recycling of current scrap of the casting alloys of Magnesium through the use of the innovative method endomodyfication
P. Dudek, Foundry Research Institute, Cracow, Poland

Ceramic plasma-sprayed coating for a re-usable crucible
H. Soong, Korea Atomic Energy Research Institute, S. Korea

Fabrication and characterization of U-ZR fuel slug prepared by an injection casting method for SFR
H. Soong, Korea Atomic Energy Research Institute, S. Korea

The effect of misch-metal on microstructure and mechanical properties of AM80-XMM Magnesium Alloy
S.-G. Lim Gyeongsang Univ., S. Korea

Microstructure and mechanical properties of Al-7wt.%Si alloy billet solidified by progressively controlled casting
K-C. Hwang, Korea Institute of Industrial Technology, S. Korea

Microestrure behavior of brass alloy billet solidified by progressively controlled casting
H-J. Kim, Korea Institute of Industrial Technology, S. Korea

Challenges and developments of Hadfield Manganese steel castings based on service life
C.S. Mahlami, University of Johannesburg, Department of Metallurgy, S. Africa